

# evolution DT firmware and software updater

software for updating the evolution DT software and firmware

## quick start

# Table of Contents

1 System Overview .....	4
1.1 The Flasher Software.....	4
1.2 General information .....	4
1.3 WARNING.....	4
2 Installation .....	5
2.1 Cabling the PC, Dongle and Boxes.....	5
2.2 Configuring the PC COM Port.....	5
3 Control Panel .....	6
4 Installing and setting up the “Flasher” programme .....	8
4.1 Installing the .NET runtime.....	8
4.2 Installing the SetupAndSurvey software .....	8
5 Uploading the update to an “evolution DT” using the “Flasher” software.....	10

# Table of Figures

Figure 1 - “evolution DT” rear panel.....	5
Figure 2 - RS232 Connecting Cable.....	5
Figure 3 - evolutionDT Control Panel .....	7
Figure 4 – Required Flasher Files .....	8
Figure 5 - Main Flasher Screen.....	9
Figure 6 - Communication Test Screen.....	10
Figure 7 - Communication Failure Message.....	11
Figure 8 - 18V04 Warning Message.....	11
Figure 9 - 18V04 Selection Screen .....	11
Figure 10 - File Selection Screen .....	12
Figure 11 - I1 Uploading Screen .....	13
Figure 12 - I1 Successful Upload Message.....	13

# I System Overview

The purpose of “The Flasher” software is to enable simple automated updating of “**evolution DT**” operating software and firmware.

## I.1 The Flasher Software

This manual describes how to:

- Connect the PC and “**evolution DT**” unit together.
- Install and set up the software.
- Use the program to upload new operating software/firmware to an “**evolution DT**” box.

## I.2 General information

The instructions supplied with the update software will specify which parts of the update need to be loaded. Even though only one part of the update may need to be uploaded, 3 parts of the update will be supplied:

“aaaaaannn.I1”	-	<b>software update</b>
“aaaaaannn.I2”	-	<b>firmware update</b>
“aaaaaannn.eye”	-	<b>security information</b>

(a = alpha character, n = numeric character)

**Although it will do no harm to upload both parts if only one part needs to be updated. Please bear in mind that loading the “aaaaaannn.I2” file takes about 15 minutes.**

## I.3 WARNING

**If the uploading of the update (aaaaaannn.I1 or aaaaaannn.I2) is interrupted or not completed the “evolution DT” will not operate correctly. The update process will need to be performed again after powering down the unit.**

# 2 Installation

## 2.1 Cabling the PC, Dongle and Boxes

The PC communicates with the box through a COM port on the PC and the RS232 port on the “**evolution DT**” box.

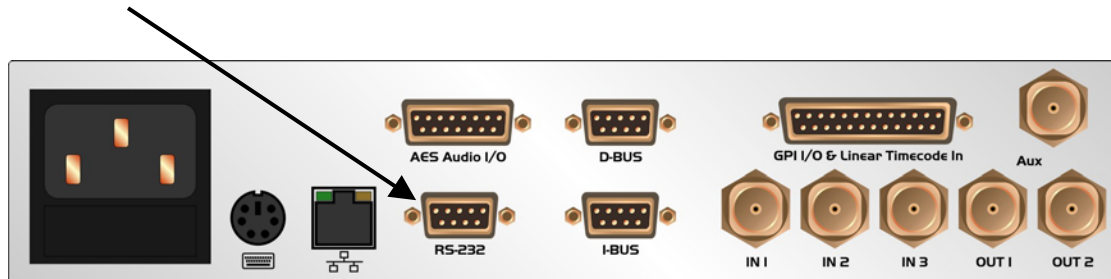


Figure 1 - “evolution DT” rear panel

Make up a connection cable as shown below (or use a straight through 9 way ribbon cable):

PC RS232	“evolution DT” RS232
2	2
3	3
5	5

Figure 2 - RS232 Connecting Cable

## 2.2 Configuring the PC COM Port

The chosen COM port on the PC has to be set to the default state of the “**evolution DT**” RS232 port:

Baud Rate 115200  
 Parity No Parity  
 Data Bits 8  
 Stop Bits 1  
 Flow Control None

*(The “Flasher” program automatically sets the PC’s comm port to the default state of the “evolution DT” RS232 port).*

# 3 Control Panel

Figure 3 shows the control panel of the “**evolution DT**” platform.

## 1 - Power/Status LED

Green – Normal operation

Green Flashing - Version Information Display

Orange – Product is initialising

Flashing Red – Product is in Field Reprogramming Mode

## 2 - Menu Display/Button (1 of 4)

Displays Menu Information. The colour of the menu button indicates the function.

Green – adjustment menu. Pressing the menu or using the associated digipot(6) will adjust the menu value.

Yellow – information menu, no adjustment possible.

Blue – navigation menu. Pressing the button will take you up or down the menu hierarchy.

Red – multiple variable menu. Pressing the button will “open” the menu assigning one digipot(6) to each variable. The active LED(5) will light above the digipots associated with each variable.

## 3 - Next Menu Button

Within a layer of the menu hierarchy there may be more than four menus and where this is the case the “next” button will illuminate to show that further menus are available. Pressing the “next” button moves you to the next set of menus.

## 4 – Previous Menu Button

Within a layer of the menu hierarchy there may be more than four menus and where this is the case the “prev” button will illuminate to show that previous menus are available. Pressing the “prev” button moves you to the previous set of menus.

## 5 – Digipot Active LED (1 of 4)

Illuminates to indicate that the digipot below is active for adjustment of the associated menu variable.

## 6 – Digipot (1 of 4)

Allows for rapid adjustment of the associated menu variable.

## 7 – Next Device Button

It is possible to control more than one device from a single evolutionDT control panel. Where more than one device is assigned to the panel the “next dev” will move control to the next device in the device list.

In setup mode this button will pick up a free device and assign it to this panels device list. The button will flash to indicate that a free device is selected.

## 8 – Previous Device Button

Where more than one device is assigned to the panel the “prev dev” will move control to the previous device in the device list.

In setup mode this button will remove a device owned by this panel from this panels device list. The button will flash to indicate an owned device is selected.

### 9 – Info Button

This button displays all hardware, software and firmware version information for the currently selected product and this panel.

In setup mode where a free evolutionDT device is selected this button will flash indicating that the network address can be changed. Pressing this button will take you to the adjustment menus.

### 10 – Setup Button

Press and hold this button for four seconds to enter setup mode.

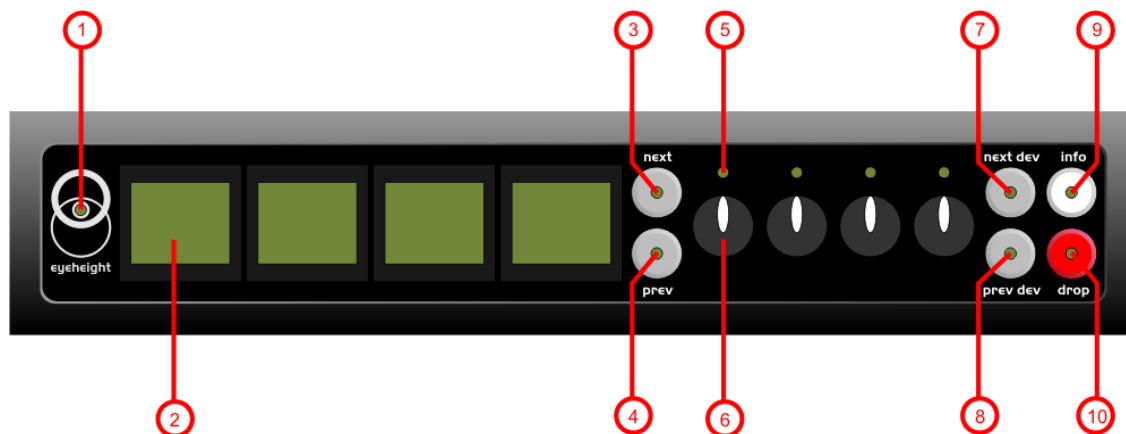


Figure 3 - evolutionDT Control Panel

- The “Flasher” program will only apply updates to an “**evolution DT**” that is already programmed to an earlier version of the same model as the update. For instance an **LESD** (“Legal Eyes”) that is Version 1.00 can be programmed to **LESD** Version 1.01 but cannot be programmed to be a **CASD** (“Cannaletto”). The model and version information can be checked by pressing the “**Info Button**” (9). **Attempting to do this can cause permanent harm to the unit.**
- The **Power/Status LED** (1) would normally be in the **green** (Normal Operation) state before trying to program using the “Flasher” software.

# 4 Installing and setting up the “Flasher” programme

## 4.1 Installing the .NET runtime

The “Flasher” software is written in C#.NET so, in order to run it, the host machine must have the **.NET runtime** software installed.

The **.NET runtime** can be downloaded free of charge from the Microsoft Windows Update website. Search for “Dotnetfx.exe” and follow the instructions.

## 4.2 Installing the SetupAndSurvey software

The “Flasher” programme can be downloaded from [http://www.eyeheight.com/software/Utilities/The\\_Flasher.zip](http://www.eyeheight.com/software/Utilities/The_Flasher.zip)

Once the **.NET runtime** is installed the “Flasher” software can be installed by extracting ALL the files in the “The Flasher.zip” file, to a suitable folder.

Unzip the files to a dedicated folder. The folder should contain the following files:

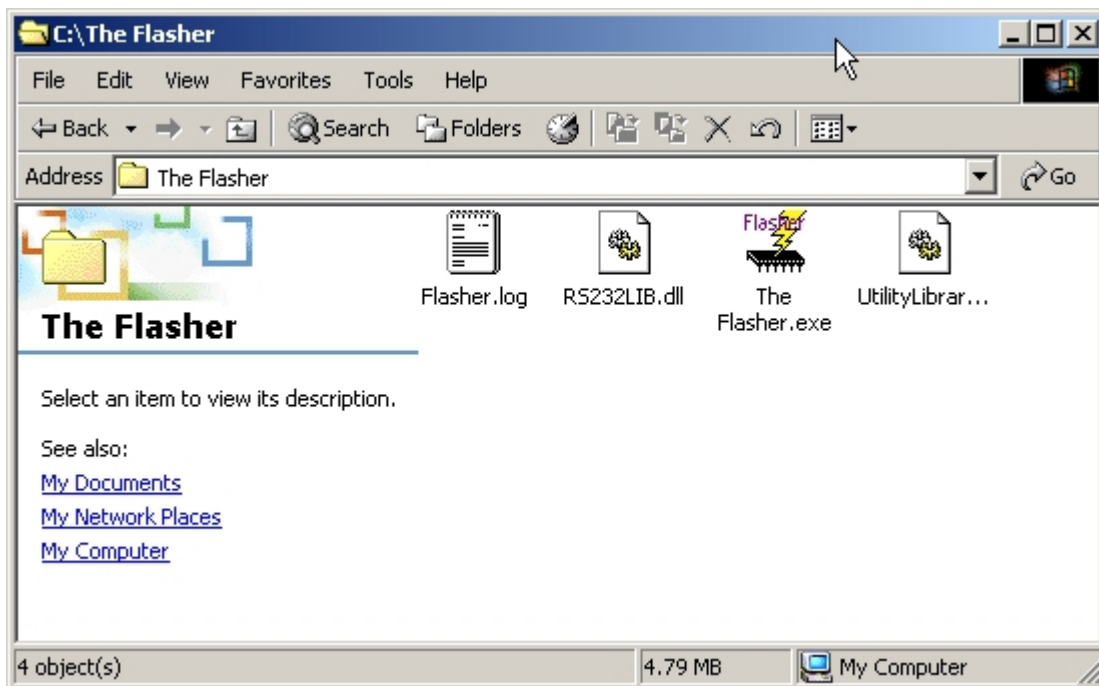


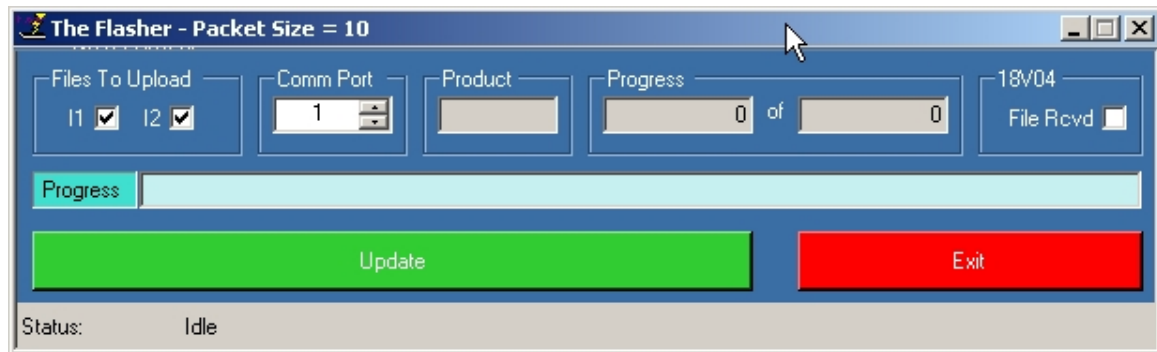
Figure 4 – Required Flasher Files

(“Flasher.log” might not appear until after the programme has been run, as it is a Log of the “Flasher” upload operations).

**“RS232LIB.dll” and “UtilityLibrary.dll” must be in the same directory as “The Flasher.exe”.**

To run the “Flasher” programme double click on “The Flasher .exe”.

The following screen should appear:



**Figure 5 - Main Flasher Screen**

# 5 Uploading the update to an “evolution DT” using the “Flasher” software

- If a COMM port on the PC, other than COMM Port 1, will be used for the “Flasher” communications, select the required port in the “Comm Port” list box.
- The instructions supplied with the upgrade software will specify which parts of the update (I1 and/or I2) need to be loaded. Select these by setting the correct tick boxes “I1” and “I2” in “Files To Upload”. If the box is ticked the file will be uploaded. Even though only one part of the update may need to be uploaded, 3 parts of the update will be supplied:
  - “aaaaaannn.I1” (where a = alpha character, n = numeric character)
  - “aaaaaannn.I2”
  - “aaaaaannn.eye” (contains security information)

Although it will do no harm to upload both parts if only one part needs to be updated, please bear in mind that loading the “aaaaaannn.I2” file takes about 15 minutes.

**If the uploading of the update (aaaaaannn.I1 or aaaaaannn.I2) is interrupted or not completed the “evolution DT” will not operate correctly. The update process will need to be performed again after powering down the unit.**

- To start the upload press the **green** “Update” button. The software will then carry out communication tests. While the tests are being carried out a message will be displayed in the status area:

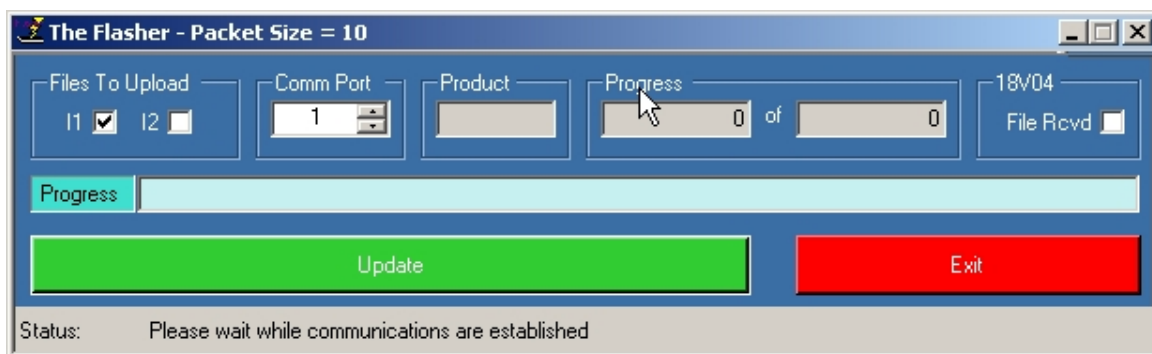


Figure 6 - Communication Test Screen

If the communications fail the following message will be displayed:

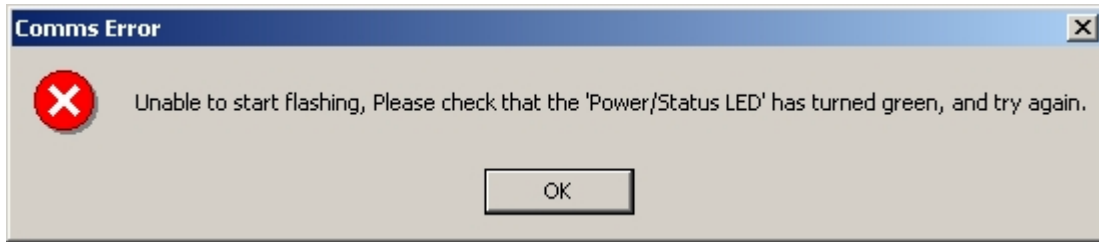


Figure 7 - Communication Failure Message

Power the **“evolution DT”** unit down and up, check the cables between the PC and the **“evolution DT”** unit, check that the correct PC COMM Port has been selected and check that the cable is plugged into the **“evolution DT”** unit’s RS232 port.

If the checks find that the 18V04 chipset has been fitted on the board the following message will be displayed:

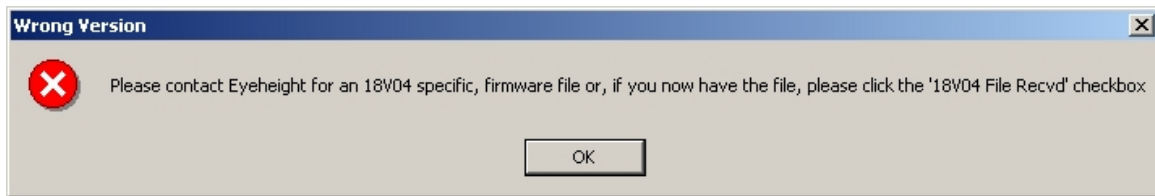


Figure 8 - 18V04 Warning Message

If you have the correct files select the 18V04 tick box, as shown on the following screen:

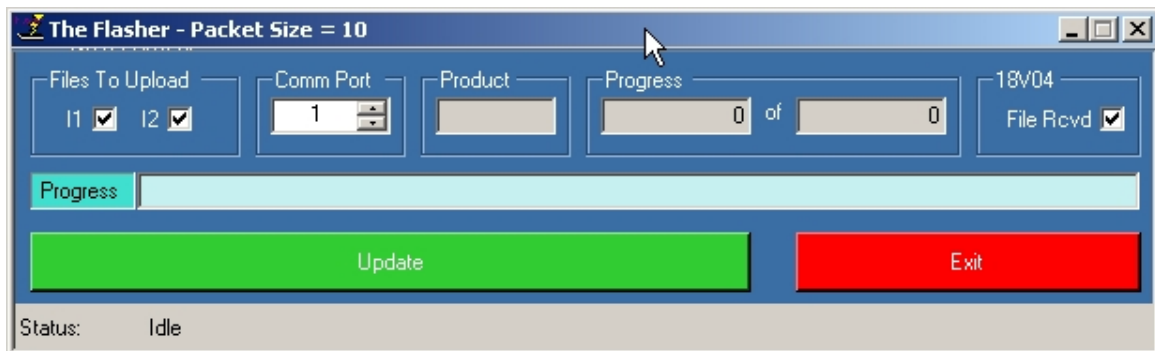


Figure 9 - 18V04 Selection Screen

If you do not have the correct files contact Eyeheight.

If the communication tests are successful a screen similar to the following screen will be displayed:

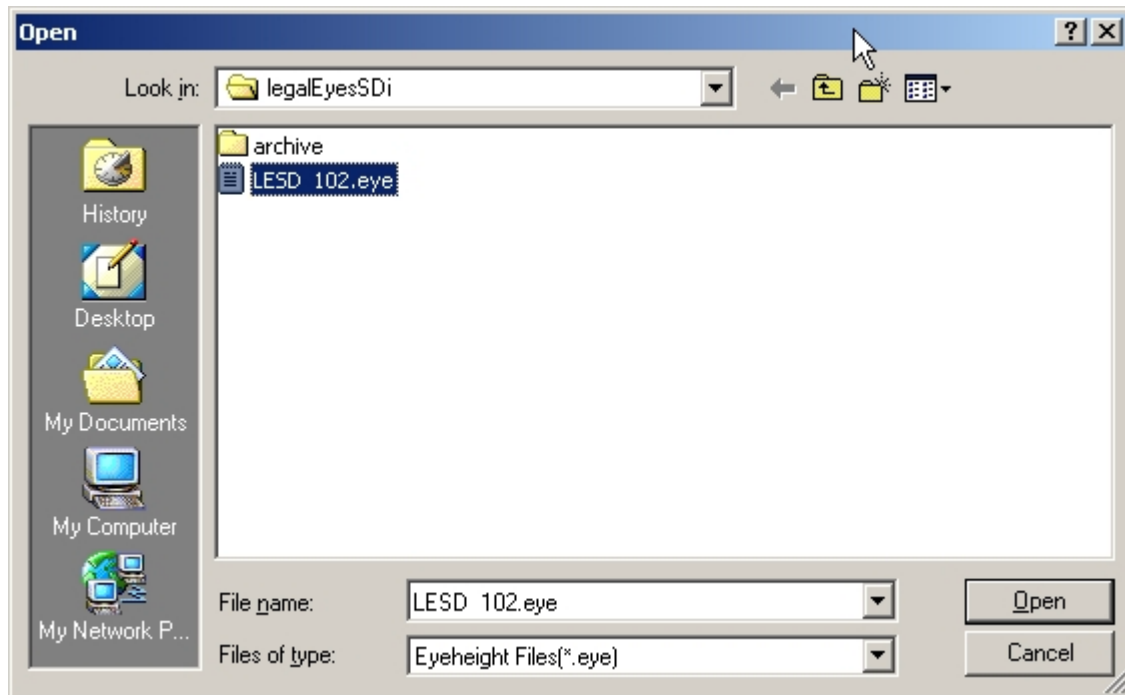
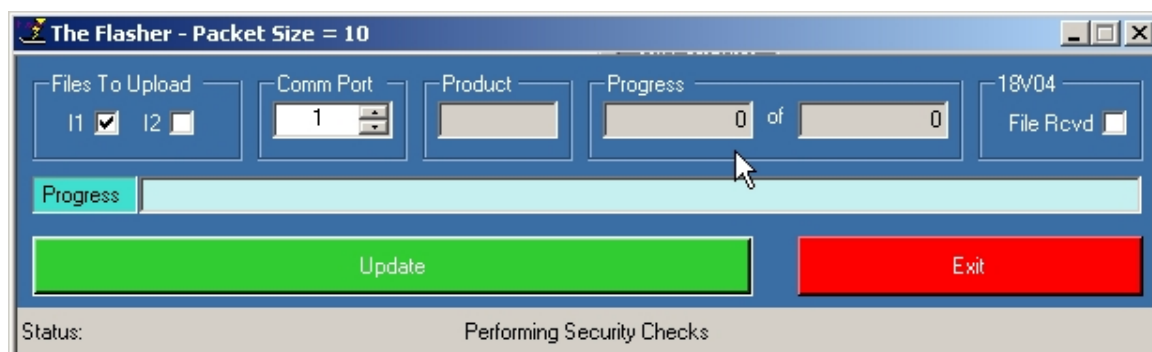


Figure 10 - File Selection Screen

Navigate to the folder where the three parts of the supplied update were saved and select the relevant “aaaaaannn.eye” file and click the “Open” button.

***All three parts of the update must be stored in the same folder.***

While security checks are being carried out to verify that the unit and the upload files are correct a message will be displayed in the status area:



Once the security checks have succeeded a screen similar to the following screen will be displayed if uploading the “aaaaaannn.I1” file:

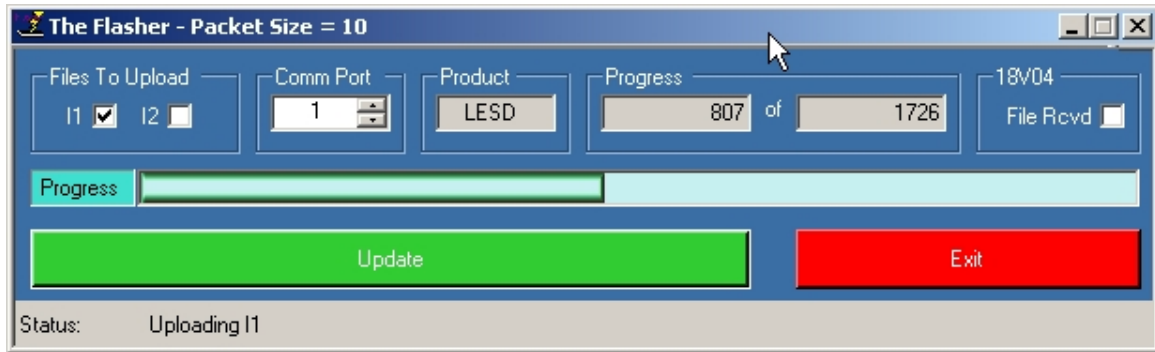


Figure 11 - I1 Uploading Screen

When the file has uploaded successfully a message similar to the following message will be displayed:

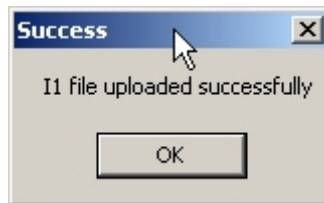


Figure 12 - I1 Successful Upload Message

***Please note that when the “aaaaaannn.I2” file is being uploaded it is normal for the upload to pause while some memory areas are being cleared and verified.***

**If any error messages are displayed whilst uploading, please contact Eyeheight for advice.**

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